

XXXIV.—Cicadidæ from Northern Sarawak.

By the late DR. J. C. MOULTON.

The collection of Cicadas brought together by Dr. E. Mjöberg during his expeditions to Mt. Murud and Mt. Dulit and neighbouring country numbers 52 specimens representing 9 genera and 16 species. Among them are two new species one of which represents a most interesting new genus. These were described in my recently published monograph on the Cicadas of Malaysia, but the descriptions are republished here to form a complete record of the valuable collections made by Dr. Mjöberg in northern Sarawak, particularly in the mountainous region of Mt. Murud.

1. DUNDUBIA VAGINATA Fabr.

4 ♂ from Bakong, 1 ♂ from Miri.

Dundubia mannifera auct.; syn. vide Moulton, F.M.S. Museum Journal 1923, p. 83.

Common species throughout the Oriental Region.

2. DUNDUBIA RUFIVENA Wlk.

10 specimens of both sexes from Bakong, Baram, Lio Matu, Pah Trap (Kalabit-country).

Very common throughout Malaysia, extending as far as New Guinea.

3. COSMOPSALTRIA MONTIVAGA Dist.

1 ♂ from Bakong.

Not rare in the mountains of Borneo; recently recorded also from the Malay Peninsula and Sumatra.

4. COSMOPSALTRIA AGATHA Moulton

3 ♂ from Miri.

Only known from Sarawak. The ♀ is yet to be discovered.

5. COSMOPSALTRIA GUTTIGERA Wlk.

7 ♂ from Baram.

Very common in Sarawak, especially at light-houses.

6. PLATYLOMIA SPINOSA Fabr.

6 ♂ from Baram Station.

Common in Borneo and the Malay Peninsula. It has a wide range in the Far East and is apparently rather variable in the shape and size of the opercula.

7. POMPONIA MERULA Dist.

1 ♂ from Miri.

Note rare in Sarawak, where it seems to replace the better known *P. imperatoria* Westwood, which is probably confined to the Malay Peninsula,

8. POMPONIA LINEARIS Wlk.

1 ♂ from Miri.

Pomponia fusca auct.; syn. vide Moulton, F.M.S. Museum Journal 1923, p. 110.

A scarce species in collections; probably has a wide distribution throughout Malaysia.

9. POMPONIA DECEM Wlk.

Pomponia diffusa Breddin et auct.; syn. vide Moulton F.M.S. Museum Journal 1923, p. 109.

1 ♂ from Mt. Murud, 6500 feet, 2 ♂ from Main River (Kalabit-country) 1 ♂ from Long Akar.

Rather a rare mountain species at present only known from Borneo and the Island of Banguay off the north coast of Borneo. I caught one some years ago, struggling in a spider's web in the mountains at an altitude of about 5000 feet, not very far from the above localities given by Dr. Mjöberg. I have also taken it at 3000 feet on Mt. Kinabalu in British North Borneo (1913).

10. POMPONIA FUSCA.

3 ♀ from Mt. Murud, 6000--7000 feet.

The identity of this species is doubtful. It was described by Oliver in 1791 from Sumatra, but without seeing the type it is impossible from the description alone to distinguish it with certainty from closely allied species such as *P. linearis*.

11. POMPONIA RAJAH n. sp.

Moulton, F.M.S. Museum Journal 1923, p. 109.

Male.

Head including eyes much narrower than base of mesonotum. face tumid, rostrum just passing posterior coxae. Head and thorax greenish-olivaceous mottled with castaneous markings, the ocelli black, a vertical castaneous line on pronotum, inner margin and base of post, ocular tumescence on pronotum castaneous, lateral margin toothed anteriorly, broadened at base. Mesonotum with six heavy blotch-like fasciae, two in front of cruciform elevation, two outwardly touching these and extending to anterior margin of mesonotum, two attenuated anteriorly and forming, with a central line, a rough trident; golden pilum on lateral margins on mesonotum. The abdomen dark castaneous with scanty pale golden pilum. Opercula broad, lateral margin and apex evenly and broadly rounded, not extending to 2nd abdominal segment tegmina hyaline, but slightly bronzed, bases of 3rd, 5th and 7th apical areas heavily infuscated; a row of well-defined neural spots along the hind-margin. Wings clear hyaline.

Exp. tegm. 131--139 mm. Total length abd. (excl. tegm.) 46--48 mm.

Type Mt. Murud, 6500 feet. Sarawak November 1922 coll. Dr. E. Mjöberg. Deposited in British Museum.

♂ and ♀ in the Sarawak Museum from the same locality.

Nearest to *Pomponia decem*, but differs in the longer rostrum, smaller expanse of tegmina, more rounded opercula, heavier mottlings on mesonotum, and heavier infuscations on the tegmina. It lacks the intra-neural smoky tinge characteristic of the apical areas in *decem*. The ocelli in that species are not on black ground-colour as in *rajah*. Both species occur together in the same region.

One male of the three examples of *rajah* has a second infuscated nervule closing the 3rd apical area on the left tegmen.

12. CHAMPAKA VIRIDIMACULATA Dist.

1 ♂ from Bakong.

Only known from Borneo, where it is not uncommon.

KALABITA nov. gen.

Moulton, F.M.S. Museum Journal 1923, p. 116.

Head including eyes considerably narrower than base of mesonotum, its length about equal to space between the eyes. its lateral margins tumid but continuous; pronotum considerably shorter than mesonotum, narrowed anteriorly, lateral margins convex anteriorly, sharply concave posteriorly; abdomen slightly longer than space between apex of front and base of cruciform elevation; tympana completely covered, tympanal covering about as broad as long, but narrowed anteriorly; opercula short very globose, wider than abdominal margin and conspicuous from above; rostrum just passing posterior coxae; tegmina and wings hyaline, the former spotted.

Type *K. operculata* described below, from Mt. Murud. Kalabit country, Northern Sarawak, Borneo.

This interesting new genus resembles *Lahugada* Distant, from Assam, in the globose opercula and narrow head, but differs otherwise in many particulars. It is possibly more nearly allied to *Oncotympana* Stal, which however is remarkable for the small opercula and enlarged globose tympanal coverings. In this genus the opercula are enlarged and globose, while the tympanal coverings are small.

13. KALABITA OPERCULATA n. sp. (Plate 14. fig. 1.)

Moulton, F.M.S. Museum Journal 1923, p. 117.

Male.

Front of head testaceous, with castaneous striations on face: vertex testaceous, centrally castaneous and with narrow castaneous fasciae at base of antennae. Pronotum testaceous with central castaneous fascia, a castaneous spot at base of lateral margin. Mesonotum, castaneous except for two incurved olivaceous lines meeting just before the cruciform elevation. Abdomen dark castaneous tympanal coverings and

opercula blackish. Tegmina hyaline, the bases of apical areas except the 6th infuscated; a row of well-defined hind-marginal neural spots. Wings clear hyaline. Clavus of tegmina and wings greenish-grey.

Exp. tegm. 93--99 mm. Total length abdomen (excl. tegm.) 33--34 mm.

Type from Mt. Murud 6,500 feet, Sarawak, 14th November 1922, coll. Dr. E. Mjöberg. Deposited in British Museum.

Three ♂ from the same locality in the Sarawak Museum.

A curious feature about this series of four specimens is the variation in the neuration of the tegmina. The base of the 4th apical area on the right tegmen in three specimens is closed by an additional infuscated nervule; in one of these three the left tegmen is similarly abnormal. The base of the 1st apical area is crossed by one additional infuscated nervule in both tegmina in one specimen, by two in another, by two on the left tegmen and one of the right in a third, and by two on the left tegmen alone in the fourth specimen.

14. RIHANA PONTIANAKA Dist.

1 ♂ from Mt. Murud 6500 feet.

A common species in Malaysia.

15. PLATYPLEURA KAEMPFERI FUSCANGULIS Butl.

1 ♂ from Mt. Murud 6500 feet.

A rare form confined to Borneo. The typical form was described from Japan. Other subspecies occur in Annam (*annamensis* Moulton) Malay Peninsula and Sumatra (*ridleyana* Distant).

16. NELCYNDANA TENER Stal.

1 ♂, 1 ♀, both from Tutau River in the West Kalabit-country.

This is the smallest Cicada known in Borneo; it measures only 20--25 mm. across the tegmina, while the largest Bornean species, *Pomponia merula*, measures about 200 mm., or nearly 8 inches across the tegmina when set.

Prof. C. F. Baker took 2 ♂ and a ♀ of *N. tener* at Sandakan in British North Borneo. These three together with Dr. Mjöberg's pair from Sarawak are the only specimens known from Borneo. Prior to their capture the species was only known from the Philippines.

Two others species of this curious primitive genus are found in Madagascar and another in the Philippines.

In a collection such as this, particularly that part of it which is the result of Dr. E. Mjöberg's work during his prolonged stay on Mt. Murud, the *absence* of certain species is often just as interesting as the presence of other species.

In the Mt. Murud collection for instance, one would have hoped to see *Pomponia graccina*, a mountain species confined to Borneo. Ane of the two rare species of *Nabalua*, at present only known (in Borneo) from Mt. Kinabalu might be expected to occur there, especially as one of them (*N. mascula*) occurs on Mt. Ophir in the Malay Peninsula. The genera *Purana*, *Maua* and *Cryptotympana* are unrepresented, although collecting on other Bornean mountains usually results in the capture of one or more species of these genera. The absence of any species of *Huechys*, brightly coloured little Cicadas, and of *Mogannia* which has four species from Borneo, chiefly from mountain parts, is remarkable and would suggest perhaps that Mt. Murud, although the home of one or two extremely interesting species, has nevertheless rather a scanty Cicadid fauna.